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10/005,043	12/04/2001	Thomas I. Yeh	88413.000002	9524

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EXAMINER

PEREZ DAPLE, AARON C

ART UNIT PAPER NUMBER

2121

DATE MAILED: 02/06/2004

8

Please find below and/or attached an Office communication concerning this application or proceeding.

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## Office Action Summary

Application No.

10/005,043

Applicant(s)

YEH THOMAS ET AL.

Examiner

Aaron Perez-Daple

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This Action is in response to Reconsideration filed 1/2/04, which has been fully considered.
2. Original claims 1-14 are presented for reconsideration.
3. This Action is made FINAL.

### ***Response to Arguments***

### **102 Rejections**

4. With respect to the Khan et al. (US 6,088,624) (hereinafter Khan), Applicant asserts that the programmable interface of the present invention is the equivalent of (e.g. an improvement over) the I/O devices 16 and 18 of Khan, Fig. 1. Although this may be the intended meaning of the claims, the Examiner finds that the claims are not limited to this interpretation. The location and arrangement of the various claimed elements a-e of the present invention has not been claimed with sufficient specificity such that it is limited to the interpretation presented by Applicant. Applicant is reminded that the Examiner is entitled to the broadest reasonable interpretation of the claims. Specifically, the Examiner interprets that the configurable interface apparatus corresponds to the controller of Khan [controller 10, Fig. 1]. The previous rejection [paper no. 6] is maintained under this interpretation.
5. As for claims 2 and 9, the cited passage of Khan refers to selecting appropriate and intuitive data structures. As would be understood by one of ordinary skill in the art, the ability to select data structures (and to exchange data between devices with different data formats) inherently requires data transform information to transform the data into the selected data structure.

6. As for claims 5 and 12, under the interpretation provided above, teaching removable memory of the central controller is sufficient to teach the claimed limitation.
7. As for claims 7 and 14, although the configuration information is clearly for a plurality of industrial machines [col. 3, lines 29-37, "Referring now to...of the like."], the I/O devices may also be interpreted as part of the industrial machines.
8. Applicant's arguments with respect to the rejection of **claims 1 and 8, 2 and 9, 5 and 12, 7 and 14** as anticipated by Khan have been fully considered but they are not persuasive for the reasons given above. Therefore the rejection of claims 1 and 8, 2 and 9, 5 and 12, 7 and 14 under 35 U.S.C. 102(b) as anticipated by Khan is properly maintained.

### **103 Rejections**

9. As for claims 4 and 11, the obviousness of this rejection is maintained under the interpretation presented above (see 102 rejections). Applicant's arguments with respect to the rejection of **claims 4 and 11** as obvious over Khan have been fully considered but they are not persuasive. Therefore, the rejection is properly maintained.
10. As for claims 3, 6, 10 and 13, Applicant asserts that Dew is unrelated to Khan or the present invention. The Examiner respectfully disagrees. Dew clearly teaches a programmable interface apparatus for interfacing with a plurality of industrial machines, wherein the industrial machines comprise welders [see Fig. 2]. As for claims 3 and 10, Dew merely provides evidence for what would be obvious to one of ordinary skill in the art (e.g. providing a display for the user). As for claims 6 and 13, Dew teaches that it is known to provide a configuration processor separate from the apparatus and removably connectable to the apparatus [PC 74, Fig. 3; col. 5, lines 37-42, "A PC based data...communication

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networks.”]. The modifications to Khan would be obvious for the reasons previously cited in paper no. 6.

11. Applicant's arguments with respect to the rejection of **claims 3, 6, 10 and 13** as obvious over Khan in view of Dew have been fully considered but they are not persuasive.

Therefore, the rejection is properly maintained.

***Claim Rejections - 35 USC § 102***

12. **Claims 1, 2, 5, 7-9, 12 and 14** are rejected under 35 U.S.C. 102(b) as being anticipated by Khan et al (US 6,088,624) (hereinafter Khan).

13. As for claims 1 and 8, Khan discloses a programmable interface apparatus and method for connecting one of a plurality of industrial machines having different data format and storage configurations to a communication medium for remote monitoring and control comprising:

(a) a memory [memory 28, Fig. 1] for storing data in predetermined locations and in a predetermined format, and for storing configuration information relating to the at least one of the industrial machines [col. 2, lines 26-47, “Specifically, the method...and the templates.”];

(b) a configurable electrical interface [I/O circuit 26, Fig. 1] responsive to the configuration information for receiving machine data from the industrial machine and sending data to the industrial machine [col. 2, lines 48-53, “It is a general...the control program.”];

(c) a data translator [I/O table 32, Fig. 1] responsive to the configuration information, receiving data from the interface and transforming the data to the predetermined format [col. 2, lines 26-47, "Specifically, the method...and the templates."];

(d) a processor [processing unit 22, Fig. 1] responsive to the configuration information for reading data from and writing data to the predetermined locations in memory [col. 3, lines 46-57, "Central processor 12...device 16 and 18."]; and

(e) a communications port connected to the communications medium [inherent for connectivity to communication link 14].

14. As for claims 2 and 9, Khan discloses the programmable interface apparatus and method of claims 1 and 8, in which the information relating to the industrial machine includes data transform information, and the data translator is responsive to the data transform information [col. 2, lines 48-53, "It is a general...the control program."].
15. As for claims 5 and 12, Khan discloses the programmable interface apparatus and method of claims 1 and 8, in which the memory storing configuration information is removable memory [discs 33, Fig. 1].
16. As for claims 7 and 14, Khan discloses the programmable interface apparatus and method of claims 1 and 8, in which the configuration information comprises configuration information for a plurality of industrial machines [Fig. 1; col. 2, lines 16-25, "The present invention...physical devices."].

***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. **Claims 4 and 11** are rejected under 35 U.S.C. 103(a) as being obvious over Khan.

Although obvious to one of ordinary skill in the art, Khan does not specifically disclose the use of non-volatile memory for storing the configuration information. "Official notice" is taken that both the concept and advantages of storing configuration information in non-volatile memory are well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to store the configuration information in non-volatile memory in order to prevent losing this information upon a power off or resetting of the apparatus.

19. **Claims 3, 6, 10 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Khan in view of Dew (US 5,963,450).

20. As for claims 3 and 10, Khan does not specifically disclose a display coupled to the processor for displaying data to a user. However, Dew discloses a programmable interface apparatus and method similar to claims 1 and 8, further comprising a display coupled to the processor for displaying the data to a user [display 87, Fig. 3]. It would have been obvious to one of ordinary skill in the art to modify Khan with the teachings of Dew by adding a display in order provide a user interface for user control and configuration of the controller, as taught by Dew [col. 2, lines 51-62, "Data from each slave...each slave device."].

21. As for claims 6 and 13, Khan does not specifically disclose the use of a configuration processor separate from the apparatus and removably connectable to the apparatus.

However, Dew discloses a programmable interface apparatus and method similar to claims 1

and 8, further comprising a configuration processor separate from the apparatus and removably connectable to the apparatus for processing configuration information and loading the configuration information into the memory [PC 74, Fig. 3; col. 5, lines 37-42, "A PC based data...communication networks."]. It would have been obvious to one of ordinary skill in the art to modify Khan with the teachings of Dew by adding a configuration processor separate from the apparatus and removably connectable to the apparatus in order provide a user interface for user control and configuration of the controller, as taught by Dew [col. 2, lines 51-62, "Data from each slave...each slave device."].

### ***Conclusion***

22. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.




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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Perez-Daple whose telephone number is 703-305-4897. The examiner can normally be reached on 9am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anil Khatri can be reached on 703-305-0282. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 2/5/04

Aaron Perez-Daple

  
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PRIMARY EXAMINER  
For Anil Khatri